

REMARKS

The action defines the three-way restriction by the following groups:

Group I: claims 1-19 are “drawn to [a] cleaning composition relating to photoresists, classified in class 510, subclass 175;”

Group II: claims 20-22 are “drawn to [a] method of forming a photoresist layer, classified in class 430, subclass 168;” and,

Group III: claim 23 is “drawn to [a] semiconductor device, classified in class 257, subclass 1.”

See the Action at p. 2. The restriction requirement is traversed, and reconsideration and withdrawal of the restriction requirement are respectfully requested in view of the following remarks.

I. The Restriction Requirement Is Traversed

This application was filed with 23 claims of which only claim 1 (Group I) is independent. Claim 1 recites a cleaning solution that includes water and a surfactant having the structure represented by *Formula 1*. Claim 20 (Group II) depends from claim 1 and recites a method of forming a photoresist pattern that includes a cleaning step utilizing the cleaning solution recited in claim 1. Claim 23 (Group III) recites a semiconductor device made by the photoresist pattern-forming method of claim 20. Thus, the groups are related in that Group III recites a semiconductor device made by a pattern-forming method recited in Group II, which method utilizes the cleaning solution recited in Group I.

A. The Restriction

As basis for the restriction, the action alleges that the Group I claims reciting the cleaning solution and the Group II and III claims reciting the pattern-forming method utilizing the solution and the semiconductor device made by the pattern-forming method, respectively, are unrelated because each has a different mode of operation from the other:

Inventions [recited in the claims of Groups] I and (II and III) are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions have different modes of operation. The semiconductor cannot be used as a cleaning solution.

Action at p. 2. Despite defining how inventions are “unrelated” and citing to the MPEP in support of the definition, the action does not allege facts supporting the conclusion that the inventions are unrelated. Specifically, the action states that “[i]nventions are unrelated if it can be shown that *they are not disclosed as capable of use together.*” *Id.* (emphasis added).

However, the action does not identify any facts suggesting that the inventions are not capable of use together. To the contrary, the application discloses that the Group III semiconductor device is made by the Group II pattern-forming method that utilizes the Group I cleaning solution. Thus, contrary to the implication in the action, the application discloses that the “inventions” are disclosed as capable of use together.

The action also alleges that the Group II claims reciting the pattern-forming method and the semiconductor device recited in the Group III claim are patentably distinct from each other:

Inventions [recited in the claims of Groups] II and III are related as process of making and product made. ... In the instant case the semiconductor can be manufactured by a variety of processes which do not necessarily require the use of the applicant photoresist.

Id. The action asserts the inventions are distinct on the bases of these allegations (yet cites neither the knowledge possessed by a person having ordinary skill in the art nor any publications to support the allegations). The action concludes restriction is proper because of the asserted distinctions, because the inventions “have acquired a separate status in the art because of their recognized divergent subject matter.” *Id.* at p. 3 (stating nothing regarding the burden (if any) of searches required to examine other groups).

B. The PTO Admissions Concerning the Patentability of the Claims

By imposing restriction among the three groups of claims, the PTO makes numerous admissions that may compel it to issue at least three separate patents. Specifically, if the three-way restriction requirement is maintained, then the PTO admits that:

- (1) The Group I cleaning solution is patentable over a disclosure of the Group II method of forming a photoresist pattern that includes a cleaning step utilizing the Group I cleaning solution, and vice versa;
- (2) The Group I cleaning solution is patentable over a disclosure of the Group III semiconductor device made by a pattern-forming method that includes a cleaning step utilizing the Group I cleaning solution, and vice versa; and,
- (3) The Group II pattern-forming method is patentable over a disclosure of the Group III semiconductor device made by the Group II pattern-forming method, and vice versa.

See, e.g., MPEP § 802.01 (8th Ed., Rev. 3, Aug. 2005). These admissions are necessary to the PTO’s entry of the restriction requirement and may be relied upon by the applicants during examination of this application and future divisional applications, unless the restriction requirement is withdrawn. If the PTO is not making these admissions regarding patentability, then the restriction requirement should be withdrawn.

The restriction requirement also should be withdrawn because the restriction may present potential double patenting. According to the MPEP, the patent statute (e.g., 35 USC § 121):

prohibits the use of a patent issuing on an application with respect to which a requirement for restriction has been made, or on an application filed as a result of such a requirement, as a reference against any divisional application, if the divisional application is filed before the issuance of the patent. The 35 U.S.C. 121 prohibition applies only where the Office has made a requirement for restriction. ... This apparent nullification of double patenting as a ground of rejection or invalidity in such cases imposes a **heavy burden** on the Office to guard against erroneous requirements for restrictions where the claims define essentially the same invention in different language and which, if acquiesced in, might result in the issuance of several patents for the same invention.

See MPEP § 804.01 (8th Ed., Rev. 3, Aug. 2005) (emphasis added). The applicants respectfully request reconsideration and withdrawal of the restriction requirement in view of the foregoing admonitions.

**C. Search and Examination of the Claims in Groups I, II, and III
Can Be Made Without Serious Burden on the PTO**

According to the MPEP, a requirement for restriction between multiple inventions is proper only when the PTO establishes (1) that the claimed inventions are independent or distinct, **and** (2) there would be a serious burden on the examiner if restriction were not required:

If the search and examination of all the claims in an application can be made without serious burden, **the examiner must examine them on the merits, even though they include claims to independent or distinct inventions.**

MPEP § 803 (8th Ed., Rev. 3, Aug. 2005) (emphasis added).

The applicant acknowledges that “a serious burden on the examiner **may** be prima facie shown by appropriate explanation of separate classification, or separate status in the art, or a different field of search as defined in MPEP § 808.02 [(8th Ed., Rev. 3, Aug. 2005)].” MPEP § 803(II). However, in the instant case, any prima facie showing of serious burden is rebutted because the search of one group will include a search of another group. *Id.* (stating that a “prima facie showing [of serious burden] may be rebutted by appropriate showings or evidence by the applicant”).

The claims of Groups I, II, and III are concerned with and recite similar subject matter. Specifically, and as set forth in Section I (above), the groups are related in that the Group III

claim recites a semiconductor device made by a pattern-forming method recited in the Group II claims, which method utilizes the cleaning solution recited in the Group I claims. The subject matter recited in all of the pending claims—the cleaning solution—is sufficiently similar such that a complete search directed to the Group II pattern-forming method would include a search directed to the cleaning solution recited in the claims of Group I, and vice versa. Similarly, a search directed to the subject matter recited in claim 23 (Group III)—a semiconductor device manufactured by the pattern-forming method recited in claim 20 (Group II)—would include a search directed to the pattern-forming method recited in the Group II claims. Separate searches according to the different classes/subclasses identified in the action would **not** constitute a serious burden. Indeed, the PTO has not even alleged that there would be a serious burden (in contravention of the examination procedure set forth at MPEP § 803).

Because search and examination of the Group I, II, and III claims can be performed without serious burden on the PTO, requiring the applicants to prosecute those claims in separate patent applications would waste the time, effort, and resources of both the applicant and the PTO. Furthermore, the applicants will likely incur additional prosecution costs associated with filing multiple divisional applications and the PTO will be required to perform duplicative searches if the restriction requirement is maintained. Thus, withdrawal of the restriction requirement relative to Groups I, II, and III will actually **reduce** the burden on the PTO and on the applicants.

In view of the foregoing, the applicants respectfully request reconsideration and withdrawal of the restriction requirement imposed between the claims falling within Groups I, II, and III.

II. Provisional Election

Pursuant to the requirements of 37 CFR § 1.143, the applicants hereby elect the subject matter recited in claims 1-19 (Group I) for further prosecution.

Should the subject matter recited in the Group I claims be found allowable, the applicants respectfully request that the subject matter recited in non-elected claims 20-23 (Groups II and III) be rejoined because the claims in each of these non-elected groups depend (either directly or indirectly) from claim 1 (Group I). See MPEP § 821.04(a) (8th ed., Rev. 3, Aug. 2005) (“Claims that require all the limitations of an allowable claim will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104.”); *see also* MPEP § 821.04(b) (8th Ed., Rev. 3, Aug. 2005) (“[I]f applicant elects a claim(s) directed to a product which is subsequently found allowable, withdrawn process claims which depend from or otherwise require all the limitations of an allowable product claim will be considered for rejoinder.”).

CONCLUSION

Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, the examiner is urged to contact the undersigned attorney.

Respectfully submitted,

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May 30, 2006

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